

ABSTRACT

A analog-to-digital converters and second order noise shaping systems are presented for providing a noise shaped analog feedback signal to a A/D converter in an analog-to-digital conversion system. The noise shaping system

- 5 comprises a first order integrator having a single amplifier, and a digital error feedback system comprising a digital signal processing system, in which the digital error feedback system provides an analog feedback signal to the A/D converter with second order noise shaping with respect to a quantization error associated with the A/D converter.